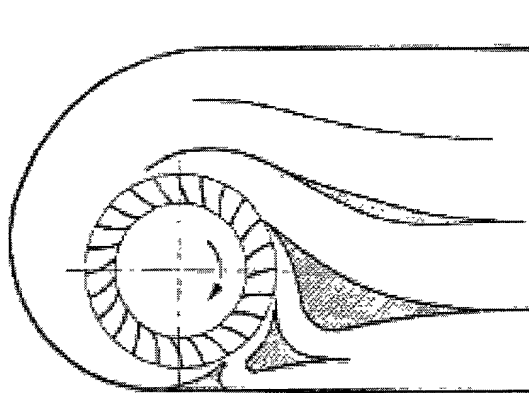


$\cong 1$ wheel
diameter

Figure 1a (Prior Art)
Guide vanes in diffuser discharge



$\cong 2x$ wheel
diameter

Figure 1b (Prior Art)
High aspect ratio discharge

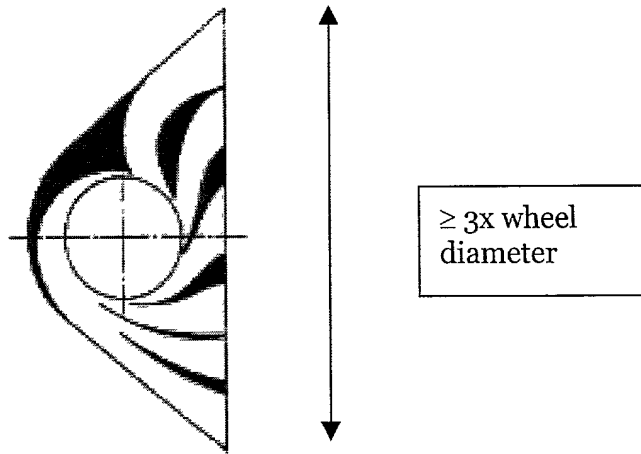


Figure 1c (Prior Art)
Very high aspect ratio discharge

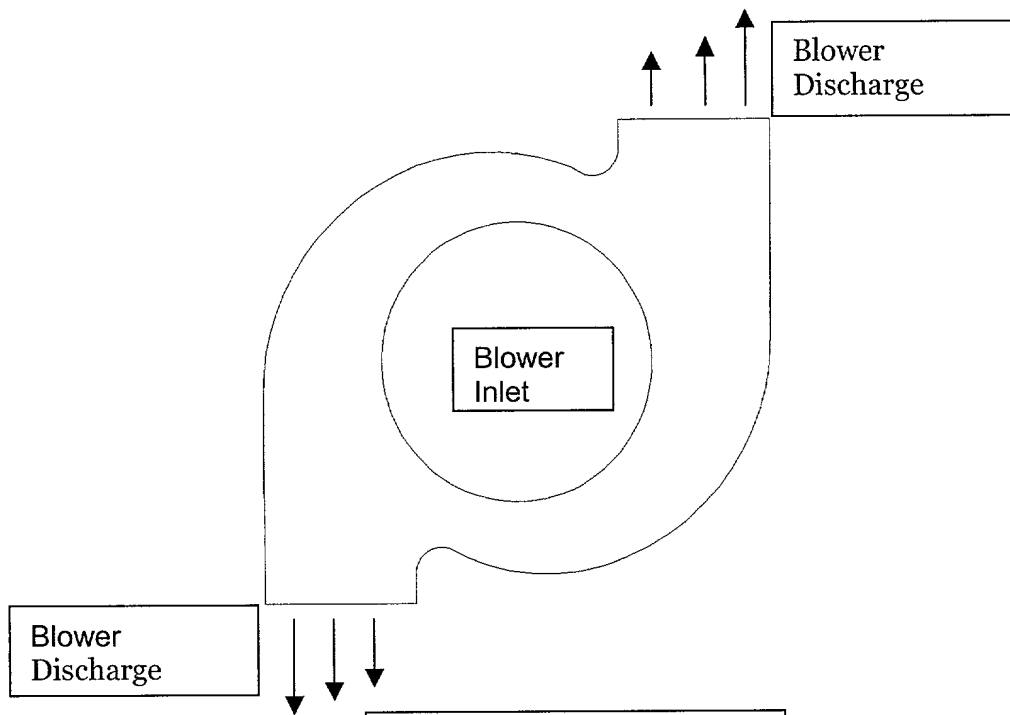


Figure 2a (Prior Art)
180° opposed discharges

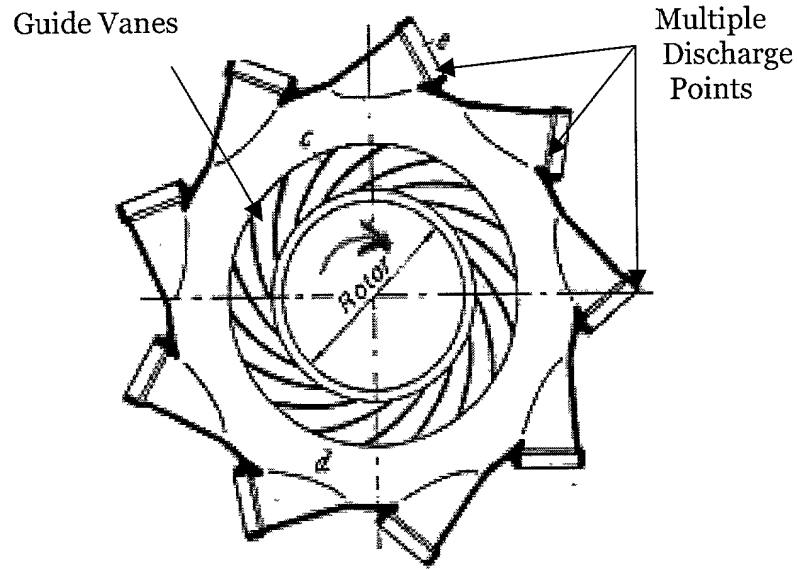


Figure 2b (Prior Art)
Vane diffuser w/ multiple discharges

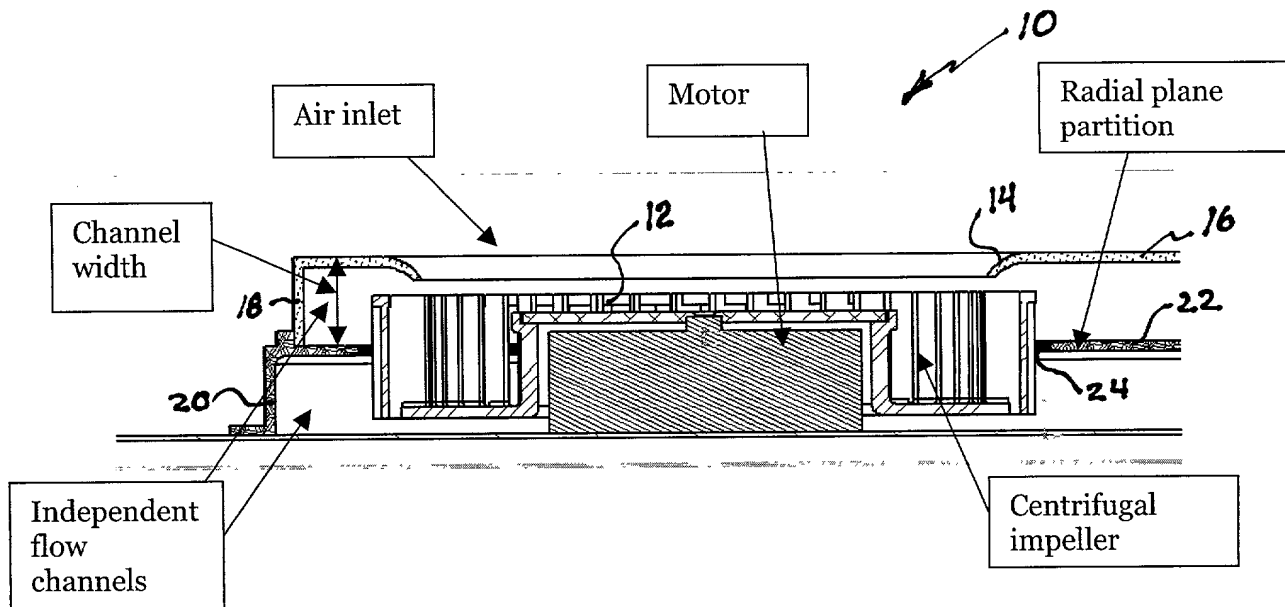


Figure 3
New design approach

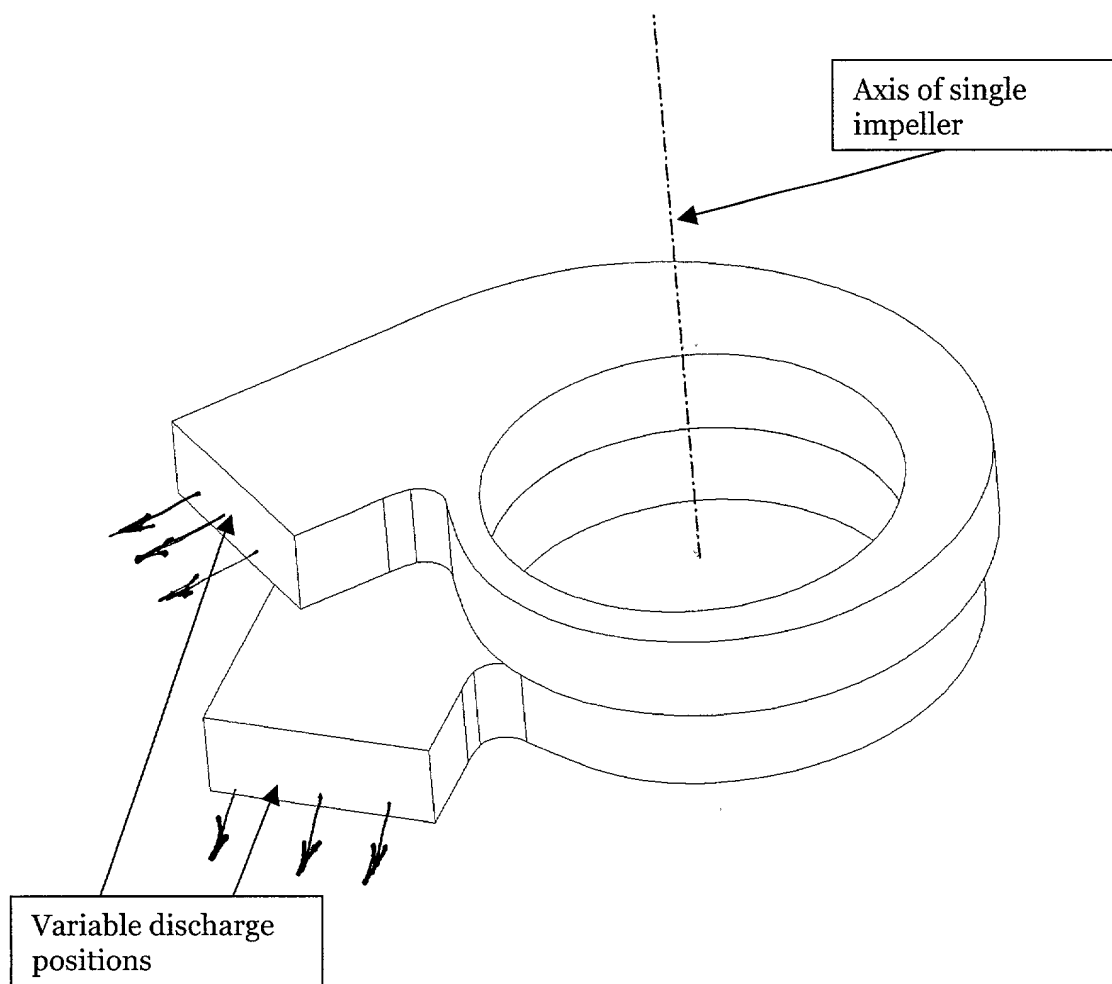


Figure 4

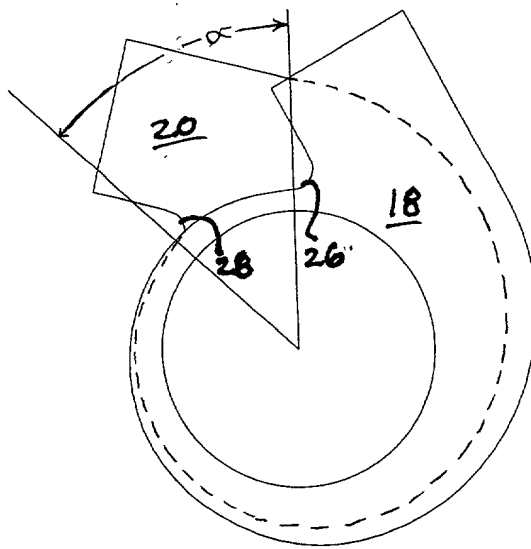


Figure 5
Infinitely variable scroll cutoff angle

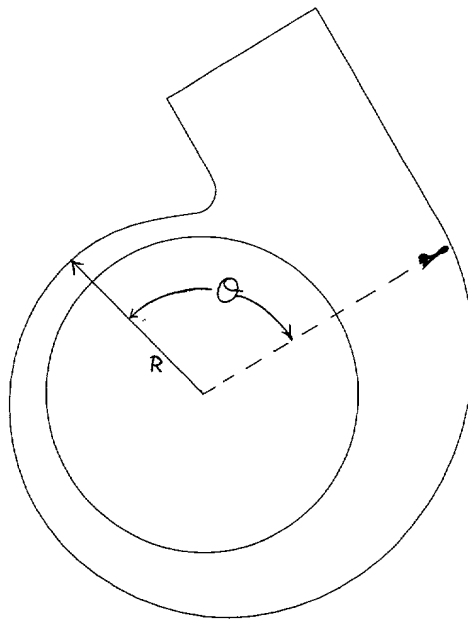


Figure 6
Scroll expansion

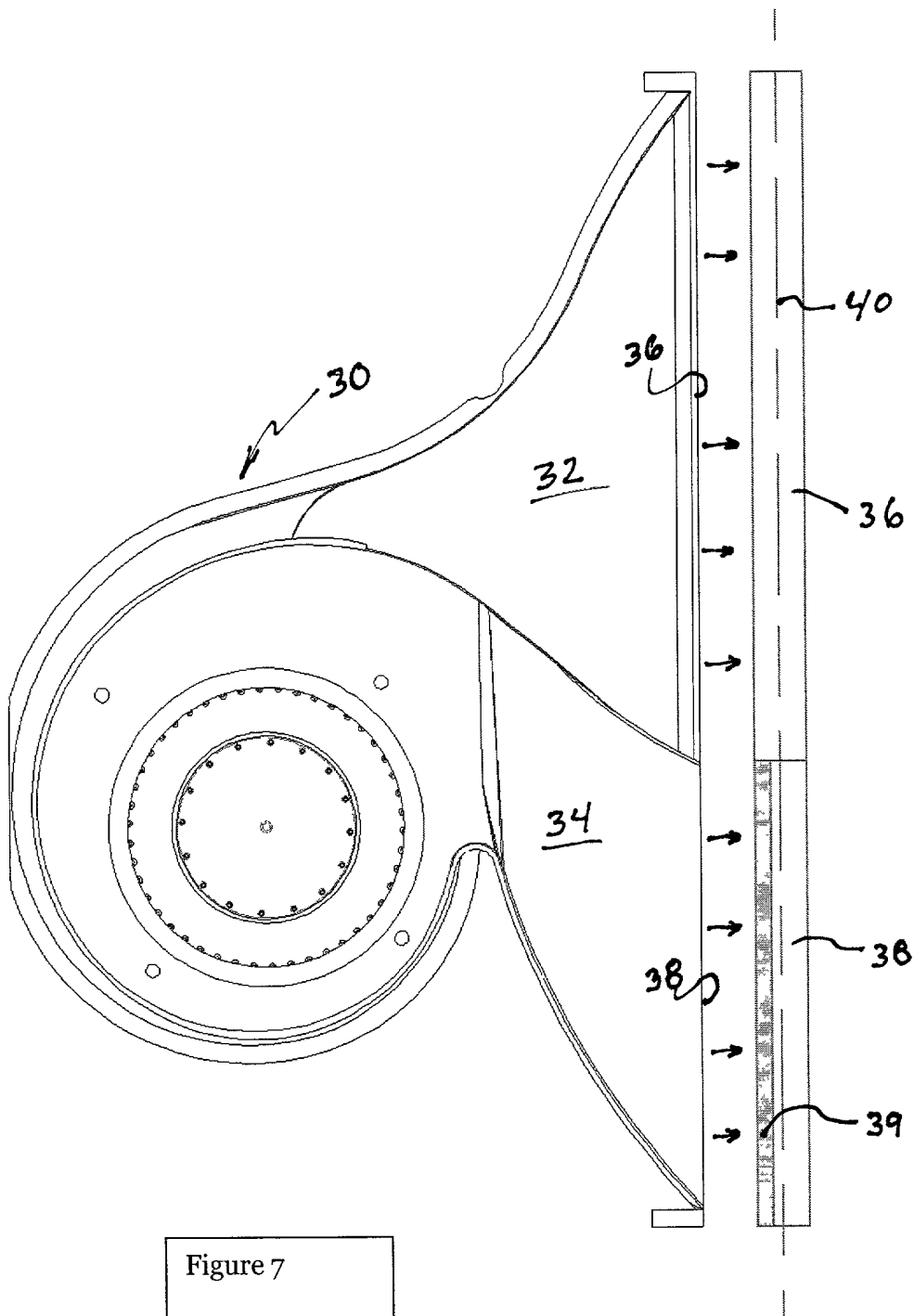


Figure 7

Figure 8

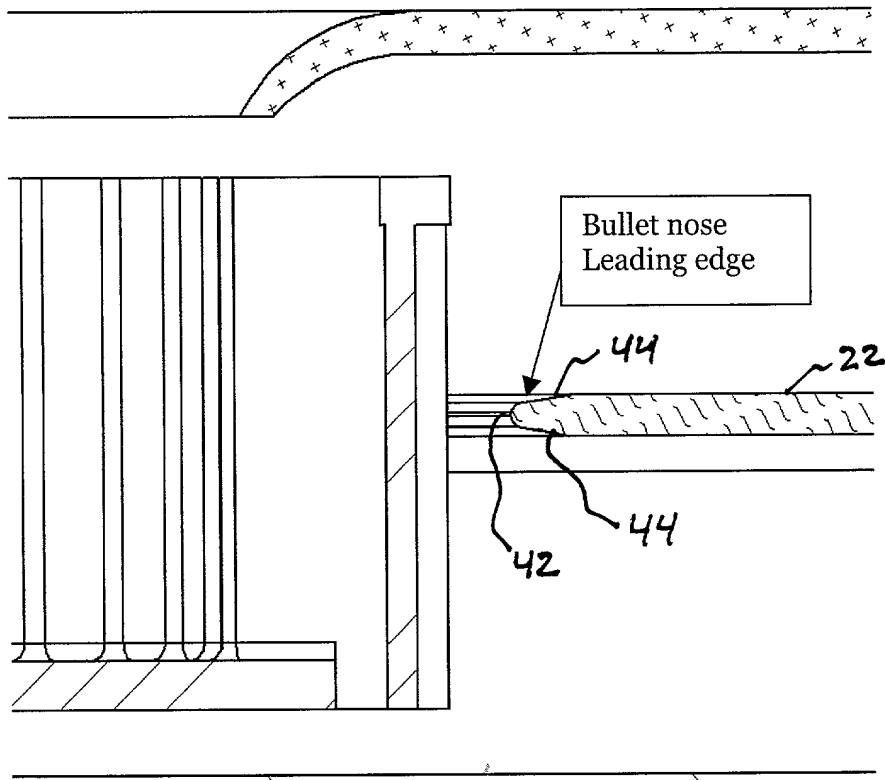


Figure 9
Radial plane partition

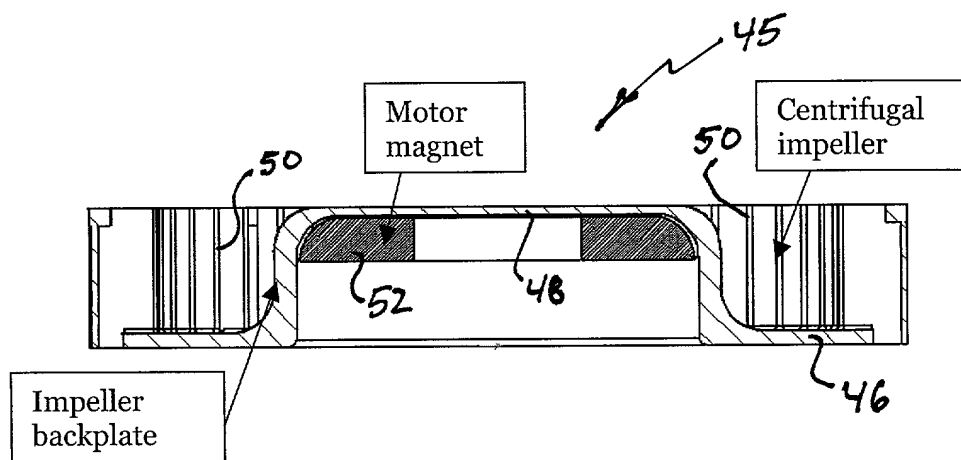


Figure 10
Impeller w/ motor magnet